

## SECTION 07 7100

### ROOF SPECIALTIES

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#### LANL MASTER SPECIFICATION

When editing to suit project, author shall add job-specific requirements and delete only those portions that in no way apply to the activity (e.g., a component that does not apply). To seek a variance from applicable requirements, contact the ESM Architectural POC.

When assembling a specification package, include applicable specifications from all Divisions, especially Division 1, General Requirements.

Delete information within "stars" during editing.

Specification developed for ML-3 projects. For ML-1 / ML-2, additional requirements and QA reviews are required.

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#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. [Copings,] [fascias,] [gravel stops,] [roof [control] [expansion] joint covers], [attic vents], [prefabricated roof curbs] [and] [snow guards].

##### 1.2 SUBMITTALS

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Only request submittals needed to verify compliance with Project requirements.

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- A. Submit the following in accordance with 01 3300, Submittal Procedures:
  - 1. Shop Drawings: Indicate configuration and dimension of components, adjacent construction, required clearances and tolerances, and other affected work.
  - 2. Catalog Data: Submit data on shape of components, materials and finishes, anchor types and locations.

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Include the following paragraph ("A3") for submission of physical samples for selection of finish, color, texture, and other properties.

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##### 3. Samples:

- a. SUBMIT 2 SAMPLES, [ ] inch in size illustrating component shape, finish, and color.

- b. Submit one component samples of [coping,] [gravel stop,] [control joint cover,] [expansion joint cover,] [attic vent,] [and] [snow guard].

- 4. Installation Instructions: Submit manufacturer's instructions for special procedures and perimeter conditions requiring attention.

### 1.3 QUALITY ASSURANCE

- A. National Roofing Contractors Association: The NRCA Roofing and Waterproofing Manual.
- B. Sheet Metal and Air Conditioning Contractors: SMACNA - Architectural Sheet Metal Manual.

### 1.4 WARRANTY

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This article extends warranty period beyond one year. Extended warranties increase construction costs and Owner enforcement responsibilities. Specify warranties with caution.

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- A. Furnish [5] year material and installation warranty for products covered by this section.

## PART 2 PRODUCTS

### 2.1 PRODUCT OPTIONS AND SUBSTITUTIONS

- A. Alternate products may be accepted; follow Section 01 2500, Substitution Procedures.

### 2.2 MANUFACTURED ROOF SPECIALTIES

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In this article, list (manufacturers) (fabricators) acceptable for this Project.

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- A. Manufacturers:
  - 1. GAF Material Corp.
  - 2. MM Systems Corp.
  - 3. Petersen Aluminum Corp.
  - 4. Custom Curb, Inc.

## 2.3 COMPONENTS

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Roof specialty components are usually proprietary; edit the following paragraphs to identify proprietary products specified above.

**Designer Note:** The designer should verify that the roofing component materials are compatible to the copper lightning protection components.

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- A. [COPINGS] [AND] [GRAVEL STOPS]: [EXTRUDED, [0.06] inch THICK] [FORMED, [0.063] [0.05] inch thick] [aluminum] [galvanized or galvalume steel] shaped as indicated on Drawings. Include cover plates to conceal and weather seal joints and attachment flanges.
- B. Control Joint Covers: Composite construction of flexible [neoprene] [Tedlar/Nitrile] flashing of [white] color [with closed cell polyurethane foam backing,] each edge seamed to [aluminum] [color coated galvanized steel] [galvanized steel] sheet metal flanges, designed for nominal joint width of [2] inch. Include special formed corners, tees, intersections, [and wall flashings,] each to be capable of being sealed watertight.
- C. Expansion Joint Covers: Composite construction of flexible [neoprene] [Tedlar/Nitrile] flashing of [white] color [with closed cell polyurethane foam backing,] each edge seamed to [aluminum] [color coated galvanized steel] [galvanized steel] sheet metal flanges, designed for nominal joint width of [2] inch. Include special formed corners, tees, intersections, [and wall flashings,] each to be capable of being sealed watertight.
- D. Attic Vents: [Dome] [Linear] type; [aluminum], [galvanized] [color coated] sheet metal,] [ ] inch thick, formed to permit installation with indicated roofing and shed water. Fabricate with 100 square inch minimum free area of ventilation per 1000 cu. ft attic or parapet attached air space.

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Roof specialty vents are only for specific applications where internally generated humidity and lack of air exchange may result in significant vapor build up.

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- E. Flat Roof Vents: [PVC] [galvanized steel] [stainless steel] "mushroom" vents for under membrane venting at a rate of 1 per 400 sq. ft of roof area.

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Roof specialty vents are for application on primarily asphaltic shingle applications but may also be used on metal roof applications.

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Sloped Roof Vent: [Galvanized steel] [aluminum] non-powered "turbo" vent at a rate of 1 per 1000 cu ft.

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Roof specialty vents are for application on metal roof applications.  
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- F. Ridge Vents: Manufactured polyester or roof membrane manufacturer recommended material installed continuously under ridge cap.
- G. Prefabricated Roof Curbs:
  - 1. Roof opening curbs.
  - 2. Roof opening curbs/pipe box assemblies.
  - 3. Roof equipment support curbs.
  - 4. Roof expansion joint curbs.
  - 5. Roof platform curbs.
  - 6. Pipe roller support curbs.
  - 7. Vented roof opening curbs.
  - 8. Louvered roof opening curbs.
  - 9. Metal building roof curbs.
  - 10. Adapter curbs.
- H. Snow Guards: [                      ].

## 2.4 MANUFACTURED PREFABRICATED ROOF CURBS

- A. Roof Opening Curbs:
  - 1. CRC-1, [Manufacturer], Model [              ].
  - 2. CRC-2, [                      ], Model [              ].
- B. Roof Opening Curbs/Pipe Box Assemblies:
  - 1. CPBA-1, [Manufacturer], Model [              ].
  - 2. CPBA-2, [                      ], Model [              ].
- C. Roof Equipment Support Curbs:
  - 1. CES-1, [Manufacturer], Model [              ].

2. CES-2, [ ], Model [ ].
- D. Roof Expansion Joint Curbs:
1. CEJ-1, [Manufacturer], Model [ ].
  2. CEJ-2, [ ], Model [ ].
- E. Roof Platform Curbs:
1. CPF-1, [Manufacturer], Model [ ].
  2. CPF-2, [ ], Model [ ].
- F. Pipe Roller Support Curbs:
1. CPRS-1, [Manufacturer], Model [ ].
  2. CPRS-2, [ ], Model [ ].
- G. Vented Roof Opening Curbs (1 inch diameter holes at 2 inches on center, insect screen over holes):
1. CVC-1, [Manufacturer], Model [ ].
  2. CVC-2, [ ], Model [ ].
- H. Louvered Roof Opening Curbs (louvered 4 sides, insect screen over louvers):
1. CLC-1, [Manufacturer], Model [ ].
  2. CLC-1, [ ], Model [ ].
- I. Metal Building Roof Curbs:
1. CMB-1, [Manufacturer], Model [ ].
  2. CMB-2, [ ], Model [ ]. Match Roof Panel: [ ].
- J. Metal Building Roof Curbs:
1. CMB-1, [Manufacturer], Model [ ].
  2. CMB-2, [ ], Model [ ].
  3. Match Roof Panel: [ ].

K. Adapter Curbs:

1. Model: Adapta-Curb(tm); Adapter Frame of box section design, mitered corners, minimum 14 gage galvanized steel fully welded one-piece construction.
  - a. Sloped cover design for positive water run-off.
  - b. Internally reinforced to support equipment load.
  - c. Internal fiberglass insulation.
  - d. Closure strips and gaskets.
  - e. Roof slope compensation.
  - f. Electrical access.
  - g. Temporary cover.
  - h. Duct transition.
  - i. Power exhaust.
  - j. Spring isolation.
  - k. Coil rack/access doors.
  - l. External support.
  - m. [ ].

2.5 ACCESSORIES

- A. Sealant: Manufacturer's standard type as recommended, suitable for use with installation of system;] [non-staining,] [skinning] [non-skinning], [non-shrinking,] [and] [non-sagging]; [ultra-violet and ozone resistant]; color as selected.

\*\*\*\*\* [OR] \*\*\*\*\*

- B. Sealant: [Butyl] [Acrylic] [Polyurethane] [Silicone] type, as specified in Section 07 9200.
- C. Roofing Cement: Premium rubberized asphaltic roofing cement.

2.6 FINISHES

- A. Aluminum: Manufacturer's standard [clear anodized] [bronze anodized] [mill finish] [pre-coated finish, color as selected] [finish as selected].

\*\*\*\*\* [OR] \*\*\*\*\*

B. Pre-Coated Galvanized Steel: Color [ ].

### PART 3 EXECUTION

#### 3.7 EXAMINATION

- A. Verify deck, curbs, roof membrane, base flashing, and other items affecting Work of this section are in place and positioned correctly.

#### 3.8 INSTALLATION

- A. Conform to [SMACNA - Architectural Sheet Metal Manual] [NRCA - Waterproofing Manual] drawing details when there are no specifications, drawings, or details provided in Contract documents.
- B. Coordinate installation of components of this section with installation of roofing membrane and base flashings.
- C. Coordinate installation of sealants and roofing cement with Work of this section to ensure water tightness.
- D. Coordinate installation of flashing flanges into reglets.
- E. Coordinate installation with roof membrane installation.

END OF SECTION

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Do not delete the following reference information:

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FOR LANL USE ONLY

This project specification is based on LANL Master Specification 07 7100, Rev. 0, dated January 6, 2006.